

**Claims**

1. The use of a compound selected from:

- 5 (a) an h-TREK1 polypeptide;  
(b) a compound which activates an h-TREK1 polypeptide; or  
(c) a compound which inhibits an h-TREK1 polypeptide; or  
(d) a polynucleotide encoding an h-TREK1 polypeptide,

for the manufacture of a medicament for treating:

- 10 (i) epilepsy;  
(ii) sleep-related disorders;  
(iii) cognitive dysfunction;  
(iv) attention deficit disorder;  
(v) addiction;  
15 (vi) anxiety / phobia;  
(vii) dyskinesias including Parkinson's and Huntington's chorea;  
(viii) cerebral palsy;  
(ix) incontinence;  
(x) erectile dysfunction; or  
20 (xi) alopecia.

2. The use according to claim 1 wherein the medicament is used in the treatment of epilepsy.

25 3. The use according to claim 1 wherein the medicament is used in the treatment of sleep-related disorders.

4. The use according to claim 3 wherein the medicament is used to enhance the induction of sleep.

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5. The use according to claim 1 wherein the medicament is used to enhance cognition or cognitive dysfunction.
6. The use according to claim 1 wherein the medicament is used in the treatment of dyskinesias including Parkinson's and Huntington's chorea
7. The use according to any one of claims 1 to 6 wherein the medicament comprises an isolated polypeptide which comprises a polypeptide having at least 95% identity to the h-TREK1 polypeptide of SEQ ID NO:2.
8. The use according to claim 7 wherein the isolated polypeptide is the h-TREK1 polypeptide of SEQ ID NO:2.
9. The use according to any one of claims 1 to 6 wherein the medicament comprises a compound which inhibits the activity of a h-TREK1 polypeptide.
10. The use according to any one of claims 1 to 6 wherein the medicament comprises a compound which activates an h-TREK1 polypeptide.
11. The use according to any one of claims 1 to 6 wherein the medicament comprises a polynucleotide encoding a polypeptide having at least 95% identity with the amino acid sequence of SEQ ID NO:2.
12. The use according to claim 11 wherein the polynucleotide comprises a polynucleotide having at least 95% identity with the polynucleotide of SEQ ID NO:1.
13. The use according to claims 11 or 12 wherein the polynucleotide has the polynucleotide sequence of SEQ ID NO:1.